LANDSCAPE RESOURCES

Compiled by the City of Fresno Water Conservation Program.

Things to Read! Places to Visit! Web Sites!

About 60% of water used is in landscapes. Much is wasted. The City of Fresno Water Conservation Program now provides FREE landscape irrigation consultation for residential or commercial/industrial customers. The service includes irrigation and plant material tips, and the Landscape Specialist will help you develop an irrigation schedule. We can also help you set your irrigation controller timer. Contact us at 621-5480 for more information.

We have compiled several landscape related resources to help you. Many are local. This is a great starting place for you to learn more about landscape and efficient watering!

THINGS TO READ!

Resources providing information about landscaping.

Book References

Sunset Western Garden Book,
Sunset Publishing. Supplies the western US climate zones with descriptions, provides plant selection-plant lists for different categories and gardening techniques, keyed extensive plant encyclopedia to climate zones, water needs, sun/shade conditions, and a glossary of terms. Most used reference book in the horticulture industry written in layman's terms.

Landscape Plants for Western Regions: An Illustrated Guide to Plants for Water Conservation.
Author Bob Perry, Library of Congress # 92-073474, Land Design Pub, Claremont CA. Drought tolerant plants for western US regions with pictures of mature plants.

A Guide to Estimating Irrigation Water Needs of Landscape Plantings in California.
Available at Department of Water Resources, Bulletins and Reports, PO Box 942836, Sacramento, Ca 94236-000, (916) 653-1097. Available in print, CD, or on-line.
http://www.owue.water.ca.gov/docs/wucols00.pdf

Part one - concepts, terms, and formulas needed to estimate irrigation water needs.

Part two - list of trees, shrubs, and perennials rated for water needs in various regions of the state.

Water Efficient Landscapes. California Department of Water Resources, brochure on-line.
http://www.owue.water.ca.gov/landscape/pubs/pubs.cfm

California Master Gardener Handbook,
University of California Cooperative Extension, text book developed for UC Master Gardener training classes, covers full range of fundamental horticultural knowledge, pub# 3382,
(800) 994-8849.

Drip Irrigation for Every Landscape and All Climates. ISBN: 0-9615848-2-3

Garden Watering Systems, Sunset Publishing

All About Sprinklers and Drip Systems, Ortho Books, ISBN: 0-89721-515-X

PLACES TO VISIT!

Local water efficient demonstration gardens.

Local Public Gardens

California State University, Fresno:

Arboretum-Self-guided tree walk; tree list and map available, call Office of University Communications, 278-4620.

Allergy Free Demonstration Garden-
located north of Smittcamp Alumni House
Rose Garden-located between Speech Arts and Thomas Administration Buildings
Iris Garden-located on south side of Pysch/Human Services Building

Clovis Botanical Garden:
Seven-acre botanical garden with climate appropriate plants, currently one-acre planted. Located east side Clovis Avenue north of Alluvial Avenue. Open Fridays 8-12 and Saturdays 9-1; free admission; 298-3091.

Friant Water Education Garden:
Primarily California native plants. Located on the Fresno side of Friant Dam, enter Millerton State Park, park vehicle at the old Millerton Courthouse and walk to the south end of dam. Open daily during state park hours; state park vehicle fee, garden free.

Garden of the Sun:
One-acre UC Master Gardener demonstration garden with an extensive food production garden and a lovely perennial garden. Located at 1944 N. Winery Avenue. Selection of classes taught on Wednesdays and Saturdays per published schedule, see web site following. Open Monday, Wednesday, and Friday 9-1; admission fee $2 per person. Groups welcome.

WEB SITES TO SEARCH!

Internet sites to research landscape information.

Web Sites

www.fresnowater.org –
City of Fresno, Water Division

www.waterright.org –
Interactive irrigation scheduling program developed by Center for Irrigation Technology, CSU Fresno

www.owue.water.ca.gov/landscape -
State of California, Landscape Water Use Program,

www.monrovia.com –
Monrovia Nursery, plant descriptions and pictures

http://mgfresno.ucdavis.edu –
UC Master Gardeners, class schedules, tree selection guides, and pest management information.

http://www.clovisbotanicalgarden.org/ -
Clovis Botanical Gardens, history, plant showcase, membership.

AUTOMATIC IRRIGATION
SPRINKLER SYSTEMS
✔CHECK LIST

Efficient water use is especially important during the hot summer months when as much as 60 percent of home water use is for watering lawns and gardens.

✔ CHECK FOR LEAKS
Manually turn on each sprinkler station valve and check to make sure there are no broken sprinkler heads or pipes in each area. Make all repairs and clean the filters in pop-up sprayers. Flush out drip and micro system filters and tubing. Check each station for leaks every two weeks.

✔ CORRECT OVER SPRAY
While checking each station for leaks adjust any sprinkler heads that are spraying onto driveways, sidewalks or the street by rotating the head, adjusting the amount of flow from the heads, and/or using the correct spray pattern.

✔ DETERMINE THE 'RUN OFF' POINT
Start your system through its automatic cycle. As each station comes on make a note of the time it starts. Watch each station and note how many minutes it takes to start running over the curb, onto the sidewalk or driveway, or to start forming puddles. This is the "run off point."

✔ HOW TO AVOID 'RUN OFF'
Using the shortest length of time noted above reset each station on your timer so the individual stations will shut off at this "run off point". If you have clay or compacted soil that is slow to absorb water, set your timer to run a second cycle (again to the "point of runoff") that begins AFTER the first cycle has soaked in.

✔ WATER SCHEDULE
Set your system to follow the City of Fresno Water Schedule. Water only on your watering day (see reverse side).

✔ AVOID POWER OUTAGE PROBLEMS
Replace battery in controller with recommended type. A good battery maintains the controller's memory during power outages.

For additional information or assistance, contact the Water Conservation Program.

City of Fresno Water Conservation Program
559-621-5480 ♦ www.fresnowater.org

IRRIGATION TIMER PROBLEMS?

We can show you how to set your irrigation timer!

Contact City of Fresno Water Conservation and we will visit your site and show you how to set your timer for FREE! We can include a free landscape survey. To make an appointment, call: (559) 621-5480.

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MOW HIGHER AND WATER SMARTER

Don't "Spoil" your Lawn with too Much Care!

You can achieve a healthy lawn without a lot of effort - - it starts by being water smart. When watering your lawn, learn to use less water. You will save time, money, and water.

Mow Higher and Develop Deep Roots

Mowing higher helps develop deep roots. If you mow the grass too short, root shock cause grass to turn yellow despite your watering! Set mower blades about 2-3 inches high. Never remove more than 1/3 of the leaf blade in one mowing.

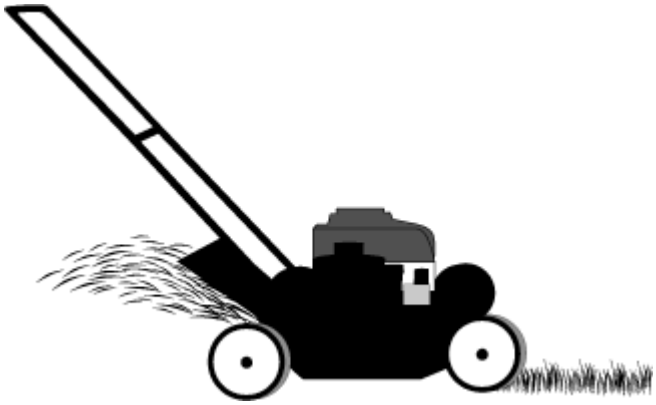
Grass needs leaf surface to take in sunlight. This will allow it to grow thicker and develop a deeper root system. A lawn with deep roots requires less water and is more resistant to drought and disease. Taller blades of grass actually hold up better in the heat, because that little bit of extra cover shades the root zone keeping more moisture in the soil. Longer, thicker grass also makes it difficult for weeds to germinate and grow.

Keep It Sharp

For best results, keep the blade sharp and mow when the grass is dry. Sharp blades reduce water loss from your lawn. A sharp blade does not leave a ragged edge on the blade of the leaf like a dull blade does. Those ragged edges can soak up a lot of water, and when you consider the total surface area of cut grass blades it adds up.

Grass cycle

Want a simple, natural approach to lawn care? Consider grass cycling--leaving the grass clippings on the lawn. Because grass clippings are 75 to 85 percent water, they quickly



decompose and release nutrients back into the lawn. Grass cycling, or mulch-mowing, provides greater shade to the ground and assists in reducing the rate of evaporation of soil moisture and surface watering. You save time by reducing bagging, raking and watering. Landfill space is also saved by reducing the amount of grass clippings being thrown away.

Let It breathe

Once a year, aerate your lawn by removing small plugs of earth. This allows air and water to reach the grass roots. You can have this done professionally, or rent tools to do the job yourself. Remove the weeds, which compete for water with the lawn.

Be Water Smarter

Water your lawn only when it needs it. A good way to test this is to step on the grass. If it springs back up when you move it doesn't need watering and if it stays flat it needs watering. Water early or late in the day. As much as 30% of water can be lost to evaporation by watering when it is hot.

By breaking up your watering time, you allow the water to soak into the ground before adding any additional water, eliminating runoff. If you have an irrigation controller and water is running off and not soaking in, set your controller to water in two shorter periods for the same total length of time.

For more tips on saving water in your landscaping, go to:
http://www.fresnowater.org
http:// www.h2ouse.org/
http://www.owue.water.ca.gov/docs/water_efficient_landscapes.pdf

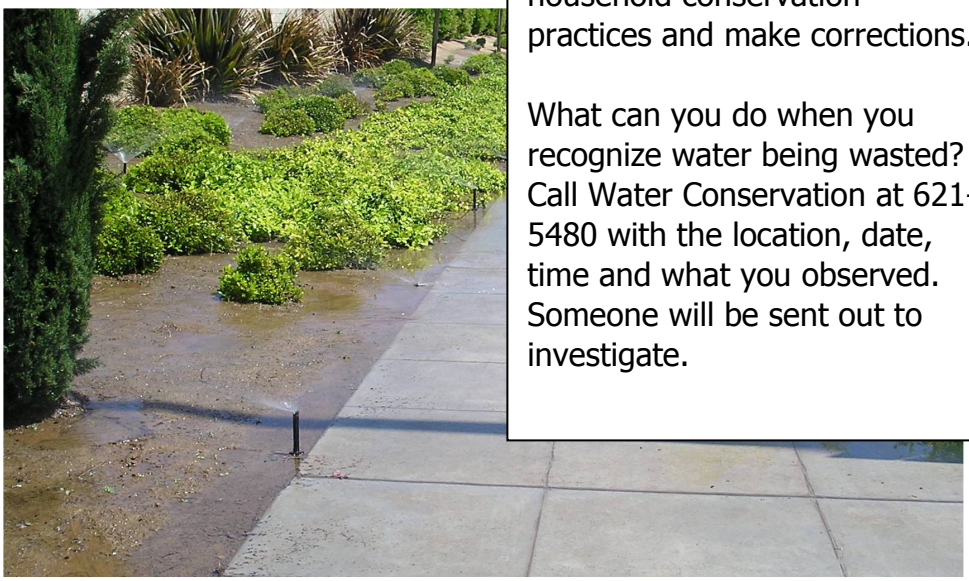
WATER WASTE

You know it when you see it!

Most people recognize water waste immediately. Flooded gutters or a 30 minute shower means more water is being used than needed. Why use more than is necessary?

Landscape can actually be harmed by overwatering, and long showers can result in higher power bills. As water meters are installed in the City of Fresno, consumers will pay for the actual amount of water used. Now is the time to assess household conservation practices and make corrections.

What can you do when you recognize water being wasted? Call Water Conservation at 621-5480 with the location, date, time and what you observed. Someone will be sent out to investigate.



Xeriscape - Consider the principles of xeriscaping when planning your landscape design.

Although xeriscaping (*xeros* = dry) originally related to landscaping in extremely dry climates, its principles, which include using water-efficient and drought-tolerant plants, fit well with conservation goals. For example, using regionally adapted plants, such as the growing variety of natives, ensures that the plant can handle this area's seasonal temperatures and rainfall, along with other environmental and soil conditions. But non-natives can also be used to add color and texture to the garden, especially those which are suited for dry, sunny locations.

Xeriscaping does not mean using only colorless plants; it does mean using the right plant in the right place. It is a water-wise landscape using colorful flowers, plants and trees as a water-saving alternative to grass.

Principles of Xeriscape

- **Planning and design** - Successful xeriscapes begin with a good design that consider the function of the landscape and the mature size and water needs of the plant. Consider the view, slope, exposure and soils of the area. Take into account the existing vegetation and topography of the site and intended use. Decide where things will be. Decide when things will be done. Most landscapes are best done in phases.
- **Soil improvements** - Soils can vary within any site. Use organic matter to improve the soil when planting. This will improve root development, water penetration and retention. It also feeds nutrients to your plants. Improve the soil before planting and installing the irrigation system.
- **Appropriate turf areas** - Locate grass only in areas where it provides functional benefits like family recreational or children's play areas. Keep grass away from sidewalks, walls and fences for easier maintenance. Avoid planting grass in oddly shaped areas that can't be watered and maintained efficiently. The reduction or elimination of high-water-use turf areas, and locating them separately so that they may be watered more efficiently, can result in significant reductions in water use.
- **Low water-use plants** - Most plants have a place in Xeriscape - even those that have high water needs. Plant selection should be based on the intended use in the landscape. Use of more plants with low water needs and native plants will allow the maximum water conservation. Some provide shade and screening, others are perfect for borders and accents. Many low water flowering plants are seasonal.
- **Efficient irrigation** - Irrigation systems should be well planned. Irrigate grass areas separately from other plantings. Group plants with like water needs, and water each group on separate zones. Not all plants need the same amount of water. Irrigate according to the needs of the plants rather than watering on a fixed schedule. Even plants used in Xeriscape will require supplemental irrigation until they become established. Change the irrigation schedule with seasonal weather changes.
- **Surface mulches** - Use mulches to cover and cool the soil, decrease evaporation, reduce weed growth and slow erosion. Organic mulches such as bark chips or wood shavings will decompose slowly over time, but it will improve the soil by adding nutrients. Inorganic mulches like rock and gravel should be used sparingly. Surrounding a home with rock will increase the temperatures.
- **Appropriate maintenance** - A landscape adapted to the environment will require less maintenance, less fertilizer and reduce the use of pesticides and other chemicals than traditional landscapes, but some regular maintenance is required. Proper pruning, weeding, fertilization and pest control will preserve and enhance the quality of your xeriscape. Irrigation system maintenance and adjustments help save water.